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NOTICE OF ALLOWANCE AND FEE(S) DUE

45115 7590 12/30/2009

8TH FLOOR

SAN FRANCISCO, CA 94111

TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER

EXAMINER PARKIN, JEFFREY S

PAPER NUMBER

ARTHNIT

1648 DATE MAILED: 12/30/2009

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 4476 10/551.405 09/29/2005 Jay A Berzofsky 015280-481100US

TITLE OF INVENTION: ENHANCED CTL EPITOPE-CONTAINING HIV-1 REVERSE TRANSCRIPTASE POLYPEPTIDES.

APPLN, TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$1810 03/30/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

maintenance fee notifica	ttions.	nerwise in Block 1, by (a) specifying a new c	Note	: A certificate of	mailin	can only be used fo	r domestic mailings of
TOWNSEND TWO EMBARO 8TH FLOOR	LP	papers. Each additional paper, such as an assignment or formal deawing, must have its own certificate of mailing or transmission. Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Potal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stoy ISSUE FEE address above, or being facsimile transmitted to the SPIO (5/11) 273-2886, on the date indicated below.						
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APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/551,405 TITLE OF INVENTION	09/29/2005 I: ENHANCED CTL EP	ITOPE-CONTAINING I	Jay A Berzofsky HIV-I REVERSE TR		CRIPTASE POLY		5280-481100US DES.	4476
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE I	OUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810	03/30/2010
EXAM	INER	ART UNIT	CLASS-SUBCLASS	3				
PARKIN, J		1648	424-188100					
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A PLEASE NOTE: Un recordation as set fort	condence address (or Cha B/122) attached. lication (or "Fee Address 32 or more recent) attach LND RESIDENCE DAT. less an assignee is ident th in 37 CFR 3.11. Comp	inge of Correspondence	data will appear on t T a substitute for filin	rnativ single or a t attor II be p or typ he pa g an a	vely, e firm (having as a gent) and the nam meys or agents. If printed. e) atent. If an assign assignment.	membes of u no nan	er a 2p to p to se is 3	cument has been filed
4a. The following fee(s)	riate assignee category or	categories (will not be p	b. Payment of Fee(s):	(Plea	Individual 🗖 C	orporati	on or other private gro	
☐ Issue Fee ☐ Publication Fee (? ☐ Advance Order		☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).						
	is SMALL ENTITY state	as. See 37 CFR I.27.					FITY status. Sec 37 Cl	
interest as shown by the	records of the United Sta	uired) will not be accepte tes Patent and Trademark	k Office.	u	appreum, a reg			guee or outer party
Authorized Signature Date								
Typed or printed nam		Registration No.						
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DO 313-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection of depending upon the the Chief Information C COMPLETED FORM	n or n is est indiv Office IS TO	etain a benefit by imated to take 12 idual case. Any co r, U.S. Patent and D THIS ADDRES:	he pub minuter omment Trader S. SEN	tic which is to file (and to complete, including s on the amount of tire lark Office, U.S. Dep D TO: Commissioner	by the USPTO to proce g gathering, preparing, ne you require to comp artment of Commerce, P for Patents, P.O. Box 14

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DATE MAILED: 12/30/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/551,405	09/29/2005	09/29/2005 Jay A Berzofsky		4476		
45115	7590 12/30/2009		EXAMINER			
TOWNSEND A	AND TOWNSEND A	PARKIN, JEFFREY S				
TWO EMBARC	ADERO CENTER		ART UNIT	PAPER NUMBER		
8TH FLOOR	20.01.04111		1648			
SAN FRANCISO	.O. CA 94111	DATE MAIL UD. 12(20)(2000)				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 283 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 283 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

Application No. Applicant(s) 10/551,405 BERZOFSKY ET AL. Notice of Allowability Examiner Art Unit Jeffrey S. Parkin 1648 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to the amendment filed 17 August, 2009. The allowed claim(s) is/are 1-4, 7, 17-19, 22-31, and 33-41, renumbered 1-27, respectively. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) \square All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. T Examiner's Statement of Reasons for Allowance of Biological Material □ Other . /Jeffrey S. Parkin/

Primary Examiner, Art Unit 1648

 Application No.: 10/551,405
 Docket No.: 015280-481100US

 Applicants: Berzofsky, J. A., et al.
 Filing Date: 09/29/2005

Detailed Office Action

Status of the Claims

Acknowledgement is hereby made of receipt and entry of the communication filed 17 August, 2009. Claims 1-4, 7, 17-19, 22-31, and 33-41 are pending in the instant application.

35 U.S.C. § 112, First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. \S 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Enablement

The previous rejection of claims 3 and 4 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement, is hereby withdrawn in response to applicants' amendment.

35 U.S.C. § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. \S 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The previous rejection of claims 39 and 40 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to

Application No.: 10/551,405 Docket No.: 015280-481100US
Applicants: Berzofsky, J. A., et al. Filing Date: 09/29/2005

particularly point out and distinctly claim the subject matter which applicant regards as the invention, is hereby withdrawn in response to applicants' arguments.

35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The previous rejection of claims 1, 2, 7, 17, 30, 33-36, and 39-41 under 35 U.S.C. § 103(a) as being unpatentable over Herrer et al. (1996) in view of Sarobe et al. (1998), is hereby withdrawn in response to applicants' arguments.

The previous rejection of claims 18, 19, 24, 28, 29, and 37 under 35 U.S.C. § 103(a) as being unpatentable over Herrer et al. (1996) in view of Sarobe et al. (1998), as applied supra to claims 1, 2, 7, 17, 30, 33-36, and 39-41, and further in view of Bolognesi et al. (2000, U.S. Patent No. 6,133,418), is hereby withdrawn in response to applicants' arguments.

The previous rejection of claims 22, 23, and 25-27 under 35 U.S.C. § 103(a) as being unpatentable over Herrer et al. (1996) in view of Sarobe et al. (1998), as applied supra to claims 1,

Application No.: 10/551,405 Docket No.: 015280-481100US
Applicants: Berzofsky, J. A., et al. Filing Date: 09/29/2005

2, 7, 17, 30, 33-36, and 39-41, and further in view of Berzofsky et al. (1999), is hereby withdrawn in response to applicants' arguments.

The previous rejection of claims 31 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Herrer et al. (1996) in view of Sarobe et al. (1998), as applied supra to claims 1, 2, 7, 17, 30, 33-36, and 39-41, and further in view of Berzofsky et al. (2001), is hereby withdrawn in response to applicants' arguments.

Examiner's Amendment

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

The application has been amended as follows:

- Please amend the TITLE to read as follows: Enhanced CTL epitope-containing HIV-1 reverse transcriptase polypeptides.

Correspondence

Any inquiry concerning this communication should be directed to Jeffrey S. Parkin, Ph.D., whose telephone number is (571) 272-0908. The examiner can normally be reached Monday through Thursday from 10:30 AM to 9:00 PM. A message may be left on the examiner's voice mail service. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Larry R. Helms, can be reached at (571) 272-0832. Direct general status inquiries to the Technology Center 1600 receptionist at (571) 272-1600. Informal communications may be submitted to the Examiner's RightFAX account at (571) 273-0908.

Application No.: 10/551,405 Docket No.: 015280-481100US
Applicants: Berzofsky, J. A., et al. Filing Date: 09/29/2005

Applicants are reminded that the United States Patent and Trademark Office (Office) requires most patent related correspondence to be: a) faxed to the Central FAX number (571-273-8300) (updated as of July 15, 2005), b) hand carried or delivered to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 C.F.R. § 1.1 (e.g., P.O. Box 1450, Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic Filing System. This notice replaces all prior Office notices specifying a specific fax number or hand carry address for certain patent related correspondence. For further information refer to the Updated Notice of Centralized Delivery and Facsimile Transmission Policy for Patent Related Correspondence, and Exceptions Thereto, 1292 Off. Gaz. Pat. Office 186 (March 29, 2005).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully,

/Jeffrey S. Parkin/

Jeffrey S. Parkin, Ph.D. Primary Examiner, Art Unit 1648

13 April, 2009